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INTRODUCTION

The government is not aware of any case, nor has the defense presented any, in which the proposed historical cellular analysis was found to be unreliable on *Daubert* grounds. The opposite is true: numerous courts have permitted expert testimony regarding historical cellular analysis and have found such analysis not only to be reliable, but routine. Many have done so without a hearing.

In the face of this, after already two rounds of litigation on CAST, Wendt has now filed a 45-page brief,¹ seeking to exclude or limit the proposed testimony. His motion is not based on any serious challenge to SA Sparano's qualifications or the reliability of historical cellular analysis but on an array of complaints regarding the mapping software, ESPA, which was used by SA Sparano to create a demonstrative exhibit. In addition, Wendt has made several arguments pertaining to non-*Daubert* issues, including based on authenticity, hearsay and Rule 403.

Wendt's attempt to focus the Court on ESPA is a red herring, and is irrelevant to the Court's inquiry of whether historical cellular analysis is "junk science" under *Daubert* such that the Court must exercise its gatekeeping function. It clearly is not. The demonstrative exhibit created by SA Sparano is not her actual expert opinion, but merely will aid in her presentation to the jury of that opinion. The creation of the maps in the demonstrative require no expertise whatsoever, and courts have agreed. The notion that any witness who uses any software or technological tool in their work must be an expert in software engineering to testify is nonsensical and far afield from the purpose of *Daubert*. Thus, whether SA Sparano used ESPA or Google Maps or some other mapping software is irrelevant to the inquiry of whether her testimony is reliable. But even if the Court were to consider the maps relevant somehow to that inquiry, the defense, as the government stated previously, has all of the records used by SA Sparano and can easily verify for themselves the accuracy of the visual representations in her demonstrative exhibit using publicly available software like Google Maps. Not a single point of inaccuracy has been pointed out to suggest that the software is unreliable.

In addition, Wendt has made a host of arguments on authenticity, hearsay, and Rule 403 grounds

¹ Defendants Ott and Diaz filed a supplemental memorandum to Wendt's motion (ECF No. 1446). Because no separate motion or joinder was filed by Ott and Diaz, the government's opposition is styled as in opposition to Wendt's motion, but the arguments herein are incorporated as in opposition to Ott and Diaz' supplemental memorandum as well.

1 that also have no bearing on the *Daubert* inquiry. The Court should reject those too, as contrary to the
 2 law and improperly presented during *Daubert* litigation.

3 In contrast to the prior briefing on CAST discovery, Wendt has now cited several cases in his
 4 brief. But even a cursory examination of those authorities reveal that they do not stand for any of the
 5 propositions Wendt is attempting to persuade the Court of. None of them hold that historical cellular
 6 analysis is unreliable under *Daubert* or that the demonstrative maps require SA Sparano to be an expert
 7 software engineer or anything close to the numerous conclusory assertions Wendt makes. In fact, as will
 8 be explained below, several of them hold *the exact opposite*.

9 Wendt's kitchen sink approach on routine CAST testimony, which has taken up a significant
 10 amount of judicial resources already, should not be further entertained by this Court. As the Court
 11 correctly noted at the last status hearing, "this is not rocket science." The Court should deny the motion
 12 in its entirety, and deny the request for a hearing.

13 BACKGROUND

14 As disclosed to the defense as early as October 2019, the proposed area of SA Sparano's
 15 testimony is straightforward: she will testify regarding call detail records and the cell site locations
 16 based on records obtained from cellular telephone companies for a set of identified telephone numbers.
 17 (*See* Peng Decl. Ex. A ("Sparano Decl").) In the course of doing that, she will explain how cellular
 18 telephones operate, how records are generated based on cellular technology, and explain what those
 19 records mean. *See id.*

20 SA Sparano has spelled out in detail the subject of her testimony and her methodology, including
 21 numerous times that her testimony will be regarding the approximate location of the cell phone, and not
 22 an exact location based on the way cell phones communicates with cell towers:

23 10. Based on my training and experience, specifically my training from cellular network engineers, I
 24 know that cell phones are designed to select which cell tower to communicate with for call
 25 origination. Cell phones (not the network) select which tower to communicate with. The cell phone
 26 decides which tower to communicate with based on one overriding factor; the cell tower with the
 27 strongest, best quality signal is the cell tower the phone will initially communicate with. This is a
 28 principal rooted in science and engineering. In analyzing historical cell site data, the CDRs indicate
 the cell tower that was, in fact, chosen by the phone regardless of whether that particular cell tower
 was the closest to the phone at the time the call was generated. In other words, the CDRs accurately
 record the cell tower that provided the best service to the cell phone. Although the cell tower listed in
 the CDRs is not always the closest tower, the phone must have been within the "footprint" of the cell
 tower that appears in the call detail record. The footprint is a coverage area of radio frequency energy
 that is dominant in a particular area. The CDR therefore identifies which cell tower had the

strongest/best signal at the time a cellular communication event occurred and that particular cell tower will provide the approximate location – not the exact location – of the cell phone at the time the record was generated.

(emphasis added; *see also* Sparano Decl. at ¶¶ 4-5.)

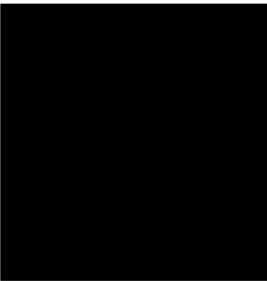
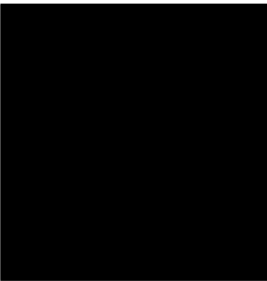
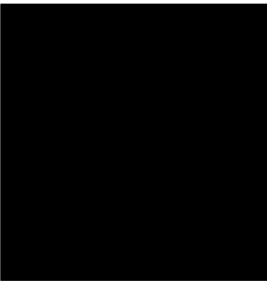
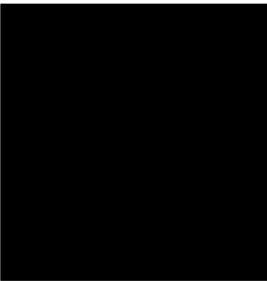
She described in detail the method she used to conduct her analysis in this case:



13. In this case, I conducted historical cellular analysis in accordance with the methods laid out above. First, I was provided sets of CDRs and address information/facts concerning the crime, specifically a suspected homicide that occurred on or about July 15, 2014, in the vicinity of Fresno, California. I understand that the CDRs provided to me were obtained from search warrants executed in this case for a set of nine phone numbers of interest in the suspected homicide. The CDRs contained information regarding the towers accessed for each phone call, text message, and data session. I also obtained the tower list from the cell phone provider for the relevant time period. I then analyzed the records and compiled a report, which depicted the cellular activity of the phone numbers of interest relative to significant times and locations of the suspected homicide. As part of creating the report, I imported the CDRs and tower information into a mapping program to obtain a visual depiction of the tower locations accessed by each target phone number during relevant times to the crime. No drive test was performed in this case.

(Sparano Decl. ¶ 10; emphasis added.)

To provide additional context for the Court, below is one illustration of the CDRs, SA Sparano's demonstrative slides, and the routine nature of the proposed testimony:

1. Sample Excerpt from AT&T records for Joel Silva's phone

Item	Conn. Date	Conn. Time (UTC)	Seizure Time	ET	Originating Number	Terminating Number	IMEI	IMSI	CT	Feature	Cell Location
2624	07/15/14	23:11	0:21	0:05					MT	[NIOP;VM;CFNA]	[]
2625	07/15/14	23:11	0:26	0:05					MO	[NIOR]	[56865/22869;-119.86223;36.80757;200;65.0]
2626	07/15/14	23:12	0:00	0:17					MT	[NIOP;CHW]	[]
2627	07/15/14	23:12	0:11	0:17					MO	[NIOR]	[56865/24068;-119.85314;36.7843;306;65.0]
2628	07/15/14	23:36	0:21	0:05					MT	[NIOP;VM;CFNA]	[]
2629	07/15/14	23:36	0:25	0:05					MO	[NIOR]	[56866/22117;-119.78214;36.7216;90;65.0, 56866/22119;-119.78214;36.7216;210;65.0]

As previously explained, the CDRs produced to the defense provide the exact location of where the cell phone connectivity occurs. For instance, taking the first row, the records show that Silva's phone number , on July 15, 2014, at 23:11 UTC (4:11 p.m. PTC), left a 5 second voicemail (denoted as "VM") for Wendt, user of phone number . When the voicemail was left, Silva's cellphone connected to tower identification number 56865/22869, which can be located in the AT&T tower lists with identification numbers that have been produced. In addition, the coordinates of that tower where the cellphone actually connected to is -119.96223 longitude and 36.90757 latitude.

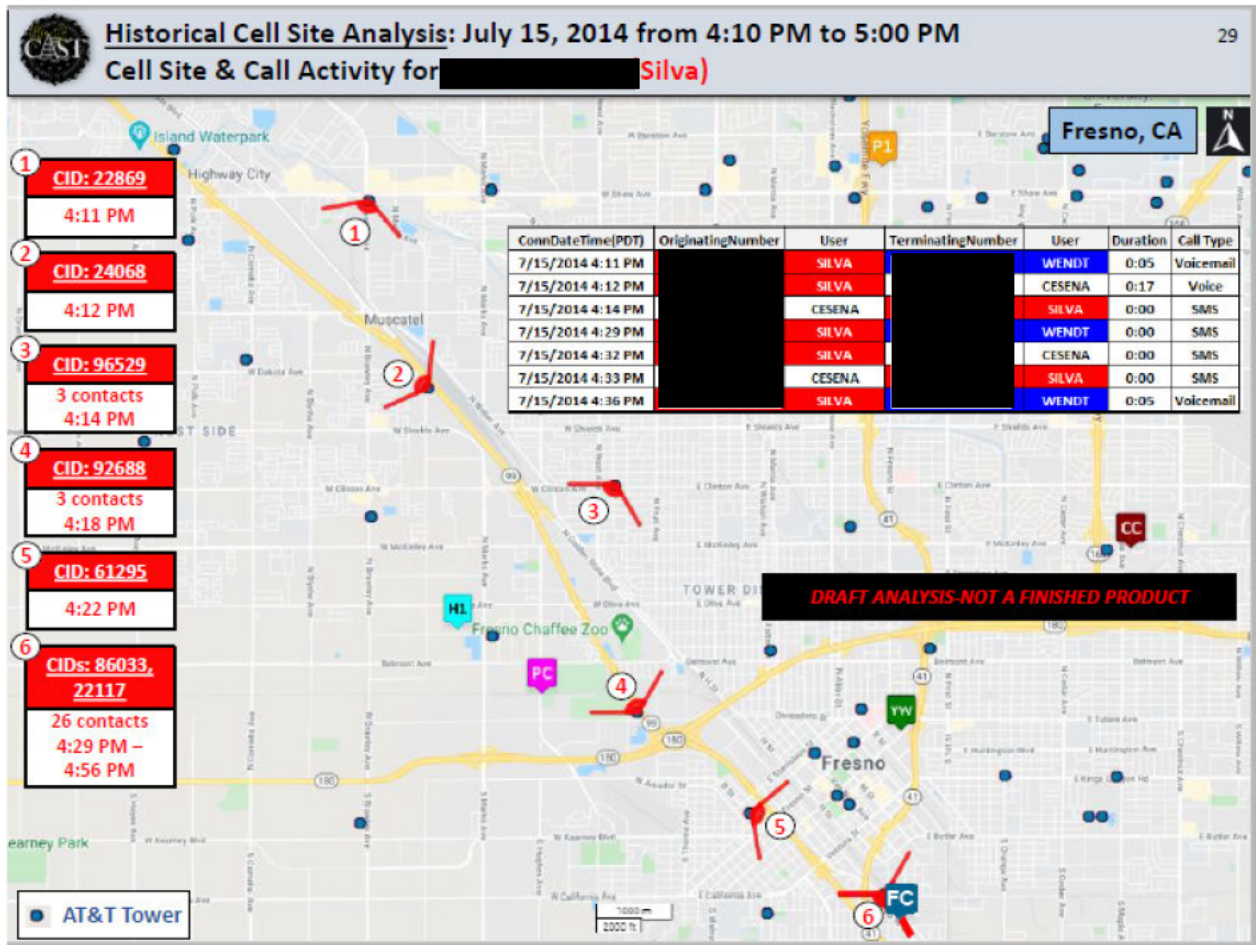
1 For that particular record, there is also a sector orientation reflected of 200 degrees.

2 AT&T CDRs and tower lists are business records of AT&T. A business custodian of AT&T
3 could admit these records, as well as explain how AT&T keeps its records and what the information
4 recorded means without any expertise. As discussed further below, likewise, any law enforcement
5 personnel familiar with cellphone records could testify to their understanding of what the AT&T records
6 and their usage of the records in their investigation as a lay witness, including how they might manually
7 input the coordinates of the cellphone activity reflected in the records.

8 2. Demonstrative Exhibit Created by SA Sparano

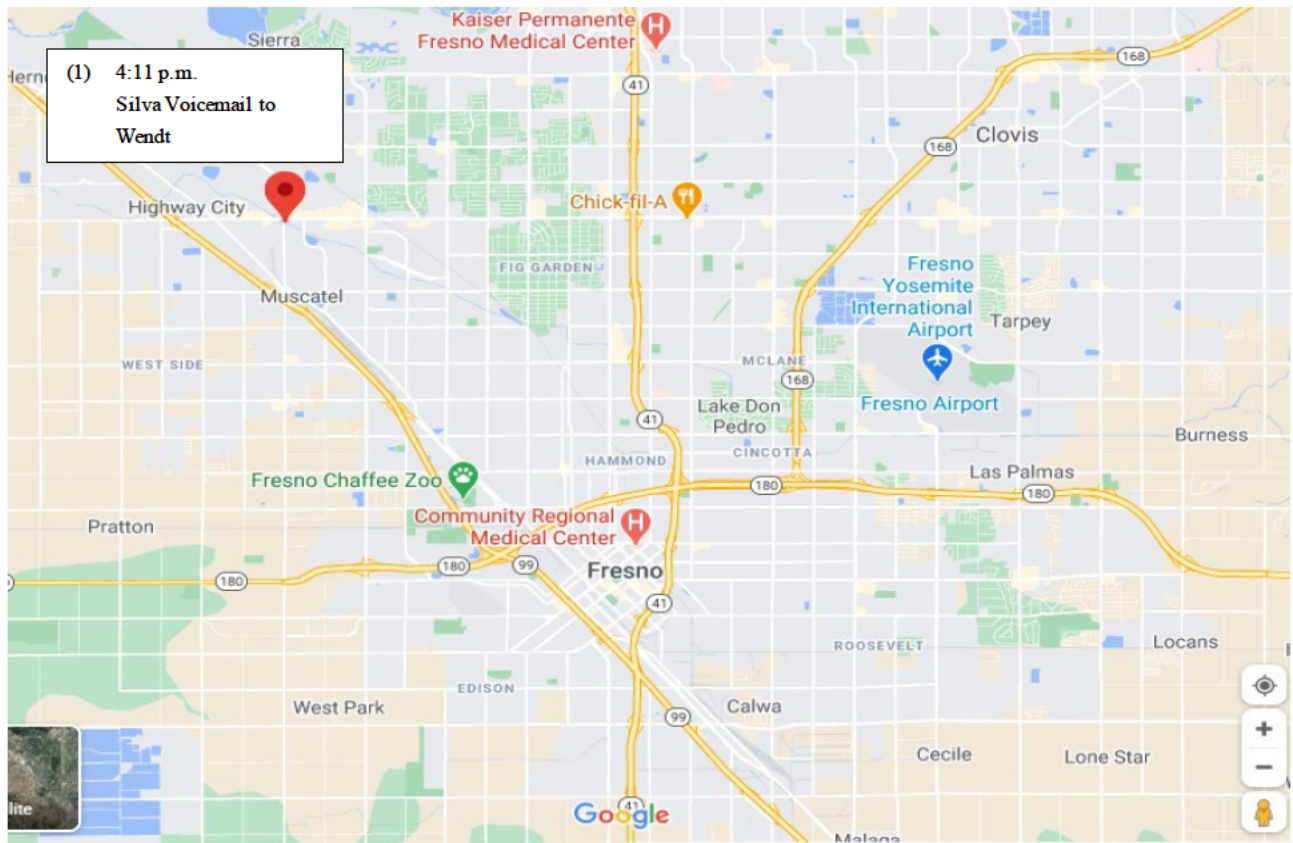
9 SA Sparano created demonstrate slides, depicting visually the location of relevant cellphone
10 activity (*See* Peng Decl. Ex. B (CAST draft demonstrative slides).) The demonstrative slides summarize
11 the AT&T records in a visual manner, and it does not contain any data beyond what is evident in those
12 records. Where there is a sector orientation reflected in the AT&T records, the demonstrative slides use
13 a wedge to depict that orientation. There is no record depicted on the demonstrative slides that is not
14 contained, and subject to checking, by looking to the AT&T records that the defense has. Below is a
15 sample slide of the deck, which reflects the 4:11 p.m. activity in the excerpted CDR above (the first row
16 in the chart).²

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28 ² The excerpted CDR is for illustrative purposes only, and does not include all of the records
reflected in demonstrative page 29.



3. Image from Google Maps Created of the Same Area

The nature of the proposed government testimony is subject to recreation and verification using publicly available mapping software. Taking the example above (4:11 p.m. activity), the coordinates - 119.96223 longitude and 36.90757 latitude can be plotted into any mapping program. Below is what results when doing that using Google Maps:



As evidenced by the fact that undersigned counsel was able to create the above using Google Maps, no expertise is required to create such a map nor to plot the location of the cell connectivity on the map.

LEGAL STANDARD

The Federal Rules of Evidence permit an expert to provide opinion testimony if “scientific, technical, or other specialized knowledge” will assist the trier-of-fact in understanding the evidence or determining a fact in issue, so long as the witness is “qualified as an expert by knowledge, skill, experience, training, or education.” Fed. R. Evid. 702. This rule imposes a “gatekeeping role” on the trial judge to ensure that an expert’s testimony “both rests on a reliable foundation and is relevant to the task at hand.” *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993). Testimony is “relevant if the knowledge underlying it has a valid connection to the pertinent inquiry” and “reliable if the knowledge underlying it has a reliable basis in the knowledge and experience of the relevant discipline.” *City of Pomona*, 750 F.3d at 1044 (quotation omitted).

Importantly, “Rule 702 should be applied with a liberal thrust favoring admission.” *Wendell v.*

1 *GlaxoSmithKline LLC*, 858 F.3d 1227, 1232 (9th Cir. 2017) (citation omitted). *See also Nimely v. City of*
 2 *New York*, 414 F.3d 381, 395 (2d Cir. 2005) (“It is a well-accepted principle that Rule 702 embodies a
 3 liberal standard of admissibility for expert opinions[.]”). Even if testimony is “shaky,” it is “to be
 4 attacked by cross examination, contrary evidence, and attention to the burden of proof, not exclusion.”
 5 *City of Pomona*, 750 F.3d at 1044. In other words, the gatekeeping role involves “screen[ing] the jury
 6 from unreliable nonsense opinions, but not exclud[ing] opinions merely because they are impeachable.”
 7 *Id.* (quotation omitted); *see also Daubert*, 509 U.S. at 596 (“Vigorous cross-examination, presentation of
 8 contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate
 9 means of attacking shaky but admissible evidence,” not exclusion).

10 **ARGUMENT**

11 **I. CAST Analysis is Routine and Well-Established**

12 As the Court recognized at the last status hearing, the government’s proposed CAST testimony is
 13 not rocket science. The Court was correct in that assessment, and it should not be persuaded otherwise
 14 by the defense’s attempt to muddy the waters of a straight-forward opinion that has already been found
 15 reliable on numerous prior occasions.

16 Cell site analysis is a well-established and accepted law enforcement tool, and agents from the
 17 FBI’s Cellular Analysis Survey Team (“CAST”) have routinely been recognized as qualified experts in
 18 this field—including in this district. The government is aware of no court that has ever found that a
 19 CAST agent is unqualified to present historical cell site analysis testimony, and the defense still has
 20 failed to present any authority for that holding. A contrary ruling by this Court would be entirely
 21 unprecedented. *See, e.g., United States v. Hill*, 818 F.3d 289 (7th Cir. 2016) (finding that historical cell
 22 site science is “well understood,” “can show with sufficient reliability that a phone was in a general
 23 area” and “the technique has been subjected to publican and peer criticism, if not peer review”); *United*
 24 *States v. Hitesman*, No. 14-CR-00010-LHK, 2016 WL 3523854, at *9 (N.D. Cal. June 28, 2016) (“In
 25 applying Rule 702, district courts within the Northern District of California have consistently found that
 26 historical cell site evidence is admissible, so long as the evidence is offered to establish an individual’s
 27 general geographic location.” (internal quotation marks and citations omitted)); *United States v.*
 28 *Cervantes*, No. 12-CR-792-YGR, 2015 WL 5569276 (N.D. Cal. Sept. 25, 2015), at *3 (admitting CAST

agents as experts and finding that “the use of cell phone location records to determine the general location of a cell phone has been widely accepted by numerous federal courts” (internal citation omitted)); *United States v. Johnson*, No. 14-CR-412-TEH, 2015 WL 5012949 (N.D. Cal. Aug. 24, 2015) (admitting FBI CAST agent testimony); *United States v. Williams*, 13-CR-764 WHO, ECF No. 836 (N.D. Cal. Jan. 27, 2016) (finding FBI CAST agent reliable under *Daubert* without hearing); *United States v. Reynolds*, No. 12-20843, 2013 WL 2480684, at *5 (E.D. Mich. June 10, 2013) (“[t]estimony about cellular phone technology and the ability to determine the general area where calls are placed and received have been widely accepted by federal courts.”); *United States v. Jones*, 918 F. Supp. 2d 1, 5 (D.D.C. 2013) (finding that “the use of cell phone location records to determine the general location of a cellphone has been widely accepted by numerous federal courts” and the field “historical cell site analysis” was “neither untested nor unestablished, (citing *United States v. Schaffer*, 439 Fed. Appx. 344, 347 (5th Cir. 2011)); *United States v. Fama*, No. 12-CR-186-WFK, 2012 WL 6102700, *3 (E.D.N.Y. Dec 10, 2012) (noting that “[n]umerous federal courts have found similar testimony reliable and admissible”) (internal quotation marks omitted)).

The United States’ proposed testimony in this case is not novel, surprising, or untested. As the Supreme Court has noted, the analysis under *Daubert* in part depends on whether a particular technique has been tested and has gained general acceptance. See *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 587 (1993); cf. *United States v. Howard*, No. SACR 16-00029(C)-CJC, 2017 WL 2662469 (C.D. Cal Jun. 19, 2017) (finding no *Daubert* hearing necessary for admission of historical cell site testimony because “a *Daubert* hearing would not be helpful here due to the wide consensus in the judicial community that historical cell site data is a reliable methodology”). Based on the widely understood and accepted methodology behind historical cellular analysis, the Court has sufficient basis to admit SA Sparano’s testimony under Rule 702 without going further.

II. SA Sparano is Well Qualified to Give Her Proposed Opinion Under Rule 702

A. SA Sparano is Qualified to Give Expert Opinion Regarding Cellphone Technology and Records and Such Opinions Are Reliable

First and significantly, Wendt does not appear to dispute that SA Sparano is qualified, through her training and experience, to testify regarding how cell phone technology works or how to interpret

1 CDRs—that is, Wendt does not object to SA Sparano’s qualifications to testify regarding her actual
2 proffered area of expertise.

3 Nor can he under *Daubert*. SA Sparano is well qualified to be an expert and historical cellular
4 analysis has proven to be reliable. As set forth in her declaration and attached CV provided to the
5 defense, SA Sparano has been a Special Agent for the FBI since 2015, and has been assigned to the FBI
6 CAST for the past three years. (Sparano Decl. ¶ 1.) She has received over 500 hours of training in the
7 area of historical call detail records analysis, cellular phones and protocols, and cellular network
8 technology, including from the FBI, other U.S. government agencies, engineers from the Florida
9 Institute of Technology, and engineers from all the major cellular providers. (*Id.*) She has also been
10 trained in real time tracking and forensic analysis of cellular phones. (*Id.*) As reflected in her CV, her
11 trainings comprise numerous courses including two CAST certifications trainings, both basic and
12 advanced pin-point cellular survey analysis, and geo-location. (*Id.* at EXPERT-00002103.) Based on
13 the expertise she has developed in the area, she has herself given numerous trainings on cellular
14 technology and record analysis to local and federal law enforcement and prosecutors. (*See id.*) She has
15 been qualified as an expert on the analysis of historical cell site data on one occasion in California state
16 court, where she testified regarding cellular analysis in a double homicide investigation. (*Id.*) Indeed,
17 understanding cellular technology and performing cellular record analysis is her full-time job. As a
18 member of CAST, she provides cellular record analysis to local, state, and federal law enforcement,
19 including analyzing and mapping historical call detail records and real-time location information. (*Id.* at
20 EXPERT-00002103). Her analysis of historical cell site data has been utilized on multiple occasions in
21 federal and state courts throughout the United States. (*Id.* ¶ 3.) Beyond the numerous court cases
22 recognizing the reliability of such analysis, her experience and the collective experience of the FBI
23 CAST in real situations and cases has proven repeatedly that historical record analysis has been highly
24 effective at determining the approximate location of cell phones at the time calls, text messages, or data
25 sessions are conducted and the CDRs are generated. (*Id.* ¶ 11.) In short, SA Sparano, like numerous
26 other CAST agents who have been similarly qualified, is well qualified to provide the proffered expert
27 testimony. *See, e.g., United States v. Howard*, No. 16-00029-CJC, 2017 WL 2662439, at *1 (C.D. Ca.
28 Jun. 19, 2017) (observing that the defense cannot dispute similar qualifications of CAST agent); *United*

1 *States v. Elima*, No. 16-00037-CJC, 2016 WL 3546584, at *2 (C.D. Cal June 22, 2016) (finding CAST
2 agent with similar qualifications “well-qualified” to testify as an expert on CDRs).

3 Based on this extensive training and experience, there can be no serious dispute (nor does Wendt
4 attempt to) that SA Sparano can provide expert testimony regarding cellphone technology and records.
5 As set forth in more detail in SA Sparano’s declaration, she will explain to the jury that “historical cell
6 site data analysis is based on the premise that the approximate (not exact) location of a cell phone can be
7 determined by examining the records generated by the cell phone when it was used.” (*Id.* ¶ 4.) She will
8 explain that the records will show “the cell tower and sector the phone utilized to complete the call, text
9 or data session” and the “cell tower and sector has a specific number combination that is unique to that
10 geographic area.” (*Id.*) She will explain that three things are needed to conduct historical record
11 analysis: a set of CDRs, a tower list, and address information/facts concerning the crimes—items that
12 are all within the defense’s possession. (*Id.* ¶ 5.) She will also explain that the reliability of cellular
13 analysis has not only been borne out by her personal experiences, but also by the collective FBI
14 verifications that have occurred over the past 10 years through cell tower surveys and drive tests and
15 independent means, and that such analysis is a widely accepted and reliable law enforcement tool. (*Id.*
16 ¶¶ 7-9, 11-12.) She will opine that, based on her training and experience, cell phones are designed to
17 select which tower to communicate with for call origination, and that “[t]he cell phone decides which
18 tower to communicate with based on one overriding factor; the cell tower with the strongest, best quality
19 signal is the cell tower the phone will initially communicate with” and “the CDR therefore identifies
20 which cell tower had the strongest/best signal at the time a cellular communication event occurred and
21 that particular tower will provide the *approximate* location—not the *exact* location—of the cell phone at
22 the time the record was generated.” (*Id.* ¶ 10 (emphasis in original).) She will provide that opinion with
23 respect to all the relevant CDRs in this case the government will present to regarding the approximate
24 locations and the activity of cell phones belonging to various individuals during the days leading up to
25 and after the Joel Silva murder in 2014.

26 Thus, putting aside the demonstrative exhibit (discussed below), there is no serious dispute that
27 SA Sparano is qualified to provide expert testimony regarding cellphone technology and records, and
28 that such an opinion is reliable under Rule 702. Tellingly, despite the length of his brief, Wendt does

1 not seriously attempt to argue otherwise on these grounds.

2 The few *Daubert* based arguments³ made by Wendt are confusing, and otherwise lack merit. He
3 claims that “because Agent Sparano is using limited data to conduct retrospective analysis of phone
4 locations in several distinct geographic locations, her opinion testimony is not the product of a reliable
5 methodology and should be excluded.” (Wendt Br. at 28.) It is unclear what Wendt is referring to. All
6 historical cellular analysis uses “limited data” of selected phone numbers to conduct “retrospective
7 analysis of phone locations in several distinct geographic locations.” That is the task. Again, all of the
8 AT&T records obtained and analyzed by SA Sparano have been provided to the defense, and they know
9 with specificity the universe of records analyzed based on the demonstrative exhibit provided.

10 Wendt cites Kevin Metcalf, a “prosecuting attorney”⁴ and suggests that it is a “problem” that no
11 NELOS⁵ data was utilized because it shows that the government is “attempting to use only some of the
12 available information.” (Wendt Br. at 30.) As previously stated by the government, there was no
13 NELOS data utilized in SA Sparano’s analysis and it is not a part of her proposed expert opinion. There
14 was no NELOS data obtained in the AT&T records in the case—the government never had NELOS data
15 in this case in its possession. Moreover, as Wendt is well aware, NELOS is newer AT&T technology
16 and has nothing to do with the reliability of historical cellular analysis based on CDRs—a methodology
17

18 ³ As set forth below, Wendt makes several arguments on non-Daubert grounds, which the
government addresses separately.

19 ⁴ It is unclear what Wendt’s purpose in citing Metcalf is, and he has made no disclosures to the
20 government regarding Metcalf’s qualifications and experiences, aside from what is included in Wendt’s
21 brief. Wendt would no doubt agree that being a “prosecuting attorney” does not inherently lend itself to
22 any expertise in cellphone technology. (Wendt Br. at 28-29.) To the extent the defense is purporting to
23 rely on any opinions from Metcalf or others in any capacity, the government requests that the proper
24 disclosures be made so the Court can perform its gatekeeping function under Rule 702. Short of that,
25 the defense should not be permitted to backdoor in expert testimony and the Court should not rely on
26 information cited in defense briefs that have not been subject to the proper Rule 702 vetting or any
27 vetting whatsoever. Case in point, Wendt’s cite elsewhere to Aaron Blank’s article is even more
28 problematic. (Wendt Br. at 32-33.) Blank is a “patient safety advocate” with Medical
Malpractice/Personal Injury practice at Shulman Rogers LLP, with no other ostensible training or
experience in cell phones. See <https://www.shulmanrogers.com/attorneys/aaron-m-blank/>. The article
cited was published in 2011, the same year that Blank graduated law school. *Id.* Should Wendt desire
to offer these or other potential expert witnesses to rebut SA Sparano’s testimony in compliance with
Rule 16 and Rule 702, he can do so at trial. The *Daubert* stage of litigation is not the venue for a battle
of experts, assuming that the people Wendt cites can qualify as such.

⁵ NELOS refers to “Network Event Location System,” and is a type of technology that will
provide GPS-type location information with respect to the location of a particular cellphones. It is not
the same as CDRs, which show the locations of the cell towers utilized by a phone at given times.

1 that has been utilized and accepted before the existence of NELOS. NELOS data is another red herring.

2 Wendt also states that there is “little indication of what effort has been made to verify the utility
3 of the records or the mapping of the areas involved as they existed in 2014.” (*Id.*) It is again unclear
4 what Wendt is referring to. The records obtained from AT&T were records from the relevant time
5 periods, and reflect the cellular activity as they occurred in 2014. The coordinates of the towers
6 connected to therefore reflect the actual towers at the time because otherwise the cell phone could not
7 have connected to it.

8 Wendt’s extensive reliance on *United States v. Hill* and *United States v. Medley* in this context is
9 likewise puzzling, and does not help his position. (Wendt Br. at 30-31.) *Hill* observed that “district
10 courts that have been called upon to decide whether to admit historical cell-site analysis have almost
11 universally done so.” 818 F.3d 289, 297 (7th Cir. 2016). There, the issue was whether the testifying
12 agent sufficiently explained that a cell phone’s use of a cell tower did not mean that the user was “right
13 at the tower or at any particular spot near that tower.” *Id.* at 298. The Seventh Circuit found that
14 disclaimer necessary and explained that “[h]istorical cell-site analysis can show with sufficient
15 reliability that a phone was in a general area, especially in a well populated one. It shows the cell sites
16 with which the person’s cell phone connected, and the science is well understood The advantages,
17 drawbacks, cofounds, and limitations of historical cell-site analysis are well known by experts in the law
18 enforcement and academic communities.” *Id.* The Court cautioned that “the admission of historical
19 cell-site evidence that overpromises on the technique’s precisions—or fails to account adequately for its
20 potential flaws—may well be an abuse of discretion.” *Id.* at 299. Ultimately, the Court upheld the
21 admission of the agent’s testimony because the jury was made aware of the technique’s potential
22 limitations and relative imprecisions. *Id.*

23 That historical cellular analysis using CDRs cannot pinpoint the exact location of a phone at a
24 particular is well understood and reflected in SA Sparano’s declaration, in alignment with *Hill*.
25 Contrary to Wendt’s suggestions, SA Sparano emphasized in her declaration: “[t]he CDR therefore
26 identifies which cell tower had the strongest/best signal at the time a cellular communication event
27 occurred and that particular cell tower will provide the *approximate* location—not the *exact* location—
28 of the cell phone at the time the record was generated.” (Sparano Decl. ¶ 10 (emphasis in original); *see*

1 *also id.* at ¶¶ 4-5.) This limitation is well known and has existed in every case where cellular historical
 2 testimony has been admitted, and does not bar the admission of SA Sparano’s testimony under Rule 702.
 3 *See, e.g., Cervantes*, 2015 WL 5569276, at *3 (admitting CAST agents as experts and finding that “the
 4 use of cell phone location records to determine the general location of a cell phone has been widely
 5 accepted by numerous federal courts” (internal citation omitted)); *Hitesman*, 2016 WL 3523854, at *9
 6 (“In applying Rule 702, district courts within the Northern District of California have consistently found
 7 that historical cell site evidence is admissible, so long as the evidence is offered to establish an
 8 individual’s general geographic location.” (internal quotation marks and citations omitted)).

9 Wendt also cites to *Medley*, another case in which the Court *admitted* expert testimony on
 10 cellular analysis. 312 F. Supp. 3d 493 (D. Md. 2018). In so doing, the Court stated that “[s]tate and
 11 federal law enforcement officers long have used the historical records of cell phone use maintained by
 12 cellular phone companies to determine the approximate location of a cell phone at a particular time and
 13 place, and both state and federal courts frequently have admitted this evidence.” 312 F. Supp. 3d 493,
 14 495 (D. Md. 2013). The Court permitted testimony regarding the general location of the defendant’s
 15 phone within the particular sector where the relevant events, to include an explanation that cellular
 16 analysis cannot pinpoint exact location. *See id.* at 503. Wendt’s attempt to distinguish *Medley* from this
 17 case on the basis that the “foundation” for the analysis done there was a set of records from Sprint does
 18 not work. (Wendt Br. at 34.) Similar records were used in SA Sparano’s analysis, as already explained,
 19 the only being difference that they came from AT&T instead of Sprint. Again, there was no NELOS
 20 data obtained from AT&T.

21 It bears repeating that the fact that a particular methodology is subject to limitations is always
 22 going to be true and is not a bar to admissibility under *Daubert*. The overwhelming authority as
 23 discussed have uniformly and repeatedly held that historical cellular analysis is reliable as a whole, and
 24 its well-known limitations are the proper subject of cross-examination at trial not exclusion at the
 25 *Daubert* stage. *See e.g., United States v. Howard*, 2017 WL 2662469, at *3 (C.D. Cal. Jun. 19, 2017)
 26 (critiques of historical cellular analysis does not warrant exclusion); *United States v. Jones*, 918 F. Supp.
 27 2d 1, 5 (D.D.C. 2013) (existence of factors affecting signal strength of cell towers proper subject of
 28 cross-examination “but does not render the fundamental methodology of cell site analysis unreliable”);

1 *United States v. Rosario*, No. 09CR415, 2014 WL 6076364, at *3 (S.D.N.Y. Nov. 14, 2014) (variances
 2 in cell phone technology and towers may affect persuasiveness of testimony but does not render
 3 methodology of cell site analysis inadmissible or unreliable as a whole); *United States v. Allums*, No. 08
 4 CR 30, 2009 WL 806748, *2 (D. Utah Mar. 24, 2009) (legitimate areas for cross-examination does not
 5 render methodology of cell site analysis itself unreliable).

6 Based on Wendt's own filing, he appears to have plenty of areas that he could cross-examine SA
 7 Sparano at trial regarding the limitations of cellular analysis, if he so chose. But exclusion under Rule
 8 702 is not proper. Wendt has shown no cognizable reason to question the reliability of historical cellular
 9 record analysis, nor SA Sparano's qualification in testifying about it. Accordingly, SA Sparano's expert
 10 opinions as noticed in her declaration should be admitted in their entirety.

11 **B. Wendt's Objections to Demonstrative Maps Have No Bearing on the Admissibility**
 12 **of SA Sparano's Expert Opinions**

13 Rather than challenge SA Sparano's qualifications or her actual opinion, Wendt's objections
 14 center on the mapping program SA Sparano used to create a demonstrative exhibit. (Peng Decl. Ex. B
 15 (SA Sparano Demonstrative Exhibit).) Wendt presents an array of arguments targeting the use of the
 16 ESPA program to generate demonstrative maps, principally contending that SA Sparano is not an expert
 17 on the mapping program's algorithms/error rates, that the maps are unreliable (*see* Wendt Br. 10-13, 24-
 18 25) and that the government has not provided sufficient disclosures on the "black box software" to
 19 permit cross-examination (*id.* at 19-24).⁶ Boiled down, Wendt essentially is objecting that SA Sparano
 20 is not an expert on ESPA and that he personally does not have access to the ESPA software. Because
 21 neither of these objections actually concern the *Daubert* inquiry before the Court—whether the expert
 22 opinion is relevant and reliable—the Court should reject them and permit SA Sparano's testimony its
 23 entirety.

24 First and fundamentally, Wendt improperly assumes that the *demonstrative* is SA Sparano's
 25 actual expert opinion, rather than merely an aid in illustrating her opinion. As explained above, SA
 26 Sparano's expert opinion concerns cellular technology and records, and specifically that a cell phone
 27

28 ⁶ Wendt separately raises Rule 403 and hearsay objections to the demonstrative presentation outside the scope of *Daubert* litigation, but the government will nevertheless address them herein.

1 will connect to the tower with the strongest and best quality signal and thus CDRs, which show which
2 tower the phone communicated with, will provide the approximate location of the cell phone at the time
3 the record was generated. (*See id.* ¶ 10.) She will give that opinion with respect to all of the relevant
4 CDRs in this case around the time of Joel Silva’s murder. The government voluntarily provided the
5 defense with a draft copy of SA Sparano’s demonstrative presentation, so that the defense could receive
6 more particular notice regarding the CDRs SA Sparano would be focused on and so that any objections
7 to it as an *exhibit* could be aired out ahead of trial. The exhibit does not impact the reliability of SA
8 Sparano’s expert opinion.

9 It is worth emphasizing that in Wendt’s lengthy brief, he does not actually challenge the
10 underlying science or reliability of historical cell site analysis nor SA Sparano’s qualifications to do
11 such analysis. And he cannot because of the overwhelming authority to the contrary. (*See supra* at 7-8.)
12 Instead, Wendt has focused on objecting to the mapping software, ESPA, to claim that SA Sparano must
13 be an expert in using that software and the defense has no access to it. This is a red herring.

14 The creation of the demonstrative exhibit requires no expertise whatsoever, and accordingly it
15 makes no difference whether the maps are created using Google Maps or ESPA or another software. As
16 illustrated by the sample CDR above and explained at the status conference on the matter, the act of
17 inputting coordinates from CDRs into a mapping software, which produces a map can be done by
18 anyone including defense counsel. *See United States v. Robinson*, No. 15-20652, 2018 WL 5077260, at
19 *3 (E.D. Mich. Oct. 18, 2018) (noting that anyone can perform the same functions as ESPA using call
20 detail records, tower locations and maps). That is, they can go through and input the coordinates in the
21 CDRs and replicate SA Sparano’s presentation through Google Maps, as demonstrated above. (*See*
22 *supra* at 5-6.) At most, the act of inputting coordinates to and the resulting maps constitutes a lay
23 opinion under Rule 701, subject to cross-examination like any other testimony but not *Daubert*.

24 This distinction is clearly drawn in *United States v. Evans*. In that case, the Court admitted maps
25 created by a special agent, who was not a part of CAST, containing cell tower locations and other
26 locations relevant to the crime, and found that using Google Maps to plot these locations “does not
27 require scientific, technical, or other specialized knowledge and that [the] exhibits are admissible
28 through lay opinion testimony under Rule 701.” 892 F. Supp. 2d 949, 953 (N.D. Ill. 2012). The Court

1 correctly distinguished between what is proper lay opinion testimony and what is subject to Rule 702:

2 Special Agent Raschke may therefore provide lay opinion testimony concerning (1) the call data
3 records obtained for Evans' phone and (2) the location of the cell towers used by Evans' phone
4 in relation to other locations relevant to the crime; but if he wishes to testify concerning (1) how
cellular networks operate, *i.e.* the process by which a cell phone connects to a given tower or (2)
granualization theory he must first meet the demands of Rule 702 and *Daubert*.

5 *Id.* at 954.

6 The Court concluded that the agent was permitted to testify regarding how cellular networks
7 operate and connections to towers because it is helpful to the jury and, though not an engineer, the agent
8 "has received extensive training on how cellular networks operate and is in regular contact with network
9 engineers. He also spends a majority of his time analyzing cell site records, which requires a thorough
10 understanding of the networks themselves." *Id.* at 955. The Court precluded testimony on
11 "granualization" theory, a topic not at issue here. *Id.*

12 The *Evans* Court got it right. As explained above, SA Sparano's expertise and how she will
13 assist the jury is her explanation of cellular technology and records. The fact that her opinion regarding
14 the CDRs in this case will more easily be explained through visual depictions of which towers the
15 phones connected to does not mean she is required to be an expert on mapping software. SA Sparano,
16 given her training and experience, can testify—as a lay witness—using demonstrative maps generated
17 by ESPA because she uses it in her daily work and understands its functionality on a basic level. *See*
18 *Evans*, 892 F. Supp. 2d at 953-54; *United States v. Morgan*, 292 F. Supp. 3d 475, 484 (D.D.C. 2018); *cf.*
19 *United States v. Graham*, 796 F.3d 332, 364-66 (4th Cir. 2015), *reversed in part on other grounds on*
20 *rehr'g en banc*, 824 F.3d 421 (4th Cir. 2016) (holding that testimony regarding signal strength and tower
21 connection by a Sprint/Nextel employee was lay opinion testimony because they were based on his
22 experience). Use of such maps as demonstratives are routinely permitted, without any requirement that
23 the witness has any "expertise" regarding the software used to generate the map. Indeed, police officers
24 and other witnesses at trial frequently testify using map demonstratives or other types of visual aids
25 generated by software, without any need to be an expert in the software. *See e.g., United States v.*
26 *Guadron-Diaz*, 19 Cr. 230 EMC, ECF No. 124 (permitting trial testimony regarding demonstrative map
27 exhibit by police officer regarding flight path of defendant's vehicle). Following Wendt's logic, anyone
28 who testifies using any basic software such as Excel for instance to provide financial analysis, would be

1 required to be an expert in the algorithms by which Excel codes its formula and calculations. Such a
2 requirement would not only upend trial practice, but would fundamentally distort the purpose of the
3 Court’s gatekeeping function to keep out “junk science” under *Daubert*. See *Messick v. Novartis*
4 *Pharm. Corp.*, 747 F.3d 1193, 1193 (9th Cir. 2014) (“While the district court must act as a gatekeeper to
5 exclude ‘junk science’ under *Daubert*, Federal Rule of Evidence 702(a) includes within its scope all
6 evidence that would ‘help the trier of fact . . . to determine a fact in issue.’”)

7 This common sense point is made in no uncertain terms by one of the cases Wendt himself
8 heavily relies upon, *United States v. Morgan*. (See, e.g., Wendt Br. at 11-12, 18, 21-23. 25 (citing
9 *Morgan*)). There, the Court admitted under Rule 702 a CAST agent’s testimony regarding a drive test
10 methodology that was conducted using survey equipment and ESPA. 292 F. Supp. 3d 475, 480-81
11 (D.D.C. 2018). The Court specifically noted that it was not accepting drive testing as reliable simply
12 because of its similarities to historical cell site analysis—the latter of which is “routinely accept[ed]” as
13 reliable. *Id.* at 484. But it went to find that the drive test was reliable on its own terms under Rule 702,
14 and in so doing specifically rejected the defense’s argument that the agent was “not qualified as an
15 expert to speak about the accuracy of [drive test] maps” created by ESPA. See *id.* The Court held that it
16 “does not require an expert to have an in-depth knowledge of all algorithms underlying their
17 technological tools—such as hardware and software—to reliably testify about the outputs of those
18 tools.” *Id.*; see also *State v. Pratt*, 128 A.3d 883, 891-92 (Vt. 2005) (“While an investigator must have
19 specialized knowledge in the use of the particular software or device, it is not required—nor is it
20 practical—for an investigator to have expertise in knowledge about the underlying programming,
21 mathematical formulas, or other innerworkings of the software”). While Wendt selectively cites
22 *Morgan* for the notion that the agents are not aware of the algorithms underlying ESPA (Wendt Br. at
23 11-12), Wendt omits the conclusion of *Morgan* that the testimony of the agent using ESPA for mapping
24 was reliable and admissible and that no in-depth knowledge of the software was required. 292 F. Supp.
25 3d 475, 484-85. Wendt’s heavy reliance on *Morgan* when it holds the exact opposite of Wendt’s
26 proffered position is telling of the legal merit of his motion.

27 Wendt also continues to suggest the fact that no “drive testing” occurred in this case is relevant
28 to the reliability of the proposed opinion. As *Morgan* indicates, it is drive testing that is the relatively

1 newer technology, whereas straightforward historical cellular analysis has already been widely accepted
2 as reliable. 292 F. Supp. 3d 475, 480-81. Wendt presents no authority suggesting the absence of drive
3 testing renders straightforward historical cellular analysis unreliable; the plethora of cases where cellular
4 analysis was admitted without drive testing demonstrate the contrary to be true. SA Sparano will not be
5 opining on any drive testing because no drive testing was conducted. Again, the issues regarding drive
6 testing and the implications for the potential accuracy of the cellular analysis could be the subject of
7 cross-examination at trial.

8 Similarly, Ott and Diaz in their supplemental memorandum contend that SA Sparano “has not
9 provided the specific details of the records she popped into the mapping program” and that she “did not
10 use all of the objective and scientific significant [sic] data provided by AT&T.” Not so. As SA Sparano
11 has stated, “[t]hree things are needed to conduct historical record analysis; a set of CDRs, a tower list
12 and address information/facts concerning the crime.” (Sparano Decl. ¶ 5.) Those are the three things
13 she used, and the defense has all of the CDRs and tower lists used. There is no “height of the tower
14 housing the antenna,” geography of the area, angle of the antenna information in the CDRs. The wedges
15 in the demonstrative do not purport to represent the actual coverage area of the tower as “one mile” (Ott,
16 Diaz Br. at 7); they simply depict the particular sector of the tower that the phone connected to as
17 reflected in the CDRs. Ott and Diaz’ reference to the Aaron Blank article, also cited by Wendt and
18 already noted, should not be seriously considered by this Court. Blank is a private medical malpractice
19 and personal injury lawyer with no ostensible training or experience in cell phones and published the
20 article the year he graduated law school.⁷ None of other proffered statements by Ott and Diaz regarding
21 what a “rudimentary understanding” of the use of radio wave propagation entails is supported. (Ott,
22 Diaz Br. at 5.) The Court should not rely on attorney proffer in its evaluation of *Daubert* reliability. As
23 explained further below, to the extent that there are limitations to historical cellular analysis including
24 factors that could affect tower coverage, those are proper subjects for cross-examination and does not
25 undermine the well-established reliability of the method overall. *See infra* 12-13.

26 That Wendt’s “*Daubert*” challenge to the demonstratives maps is misplaced can be underscored
27

28 ⁷ See <https://www.shulmanrogers.com/attorneys/aaron-m-blank/>.

1 by considering what occurs if his request of excluding the maps is granted. Given that Wendt has not
 2 challenged the basis of SA Sparano's actual opinion, she would still be allowed to testify regarding the
 3 actual AT&T CDRs and provide her expert opinion about them. Then, SA Sparano would presumably
 4 be permitted to manually plot all of the relevant locations of the CDRs while she is testifying using
 5 Google Maps in front of the jury and then provide the exact same opinion with respect to each record—
 6 that a cell phone is likely in the approximate location of the tower it connects to when it generates a
 7 record. To proceed in this manner will likely require numerous days of cellular testimony alone and be
 8 extremely wasteful of the jury's time, not to mention unhelpful to the jury's assessment of the evidence
 9 and draw a Fed. R. Evid. 403 objection. Indeed, without a visual demonstrative, testimony regarding
 10 historical cellular analysis, like other voluminous data, would be virtually impossible. *See, e.g., Evans*,
 11 892 F. Supp. 2d at 953; *Hitesman*, No. 14-CR-00010-LHK, ECF No. 126 (joint exhibit list including
 12 demonstrative exhibit of historical cell site analysis by CAST agent); *Johnson*, 14-CR-412 TEH, ECF
 13 No. 240 (admitted list of government exhibits including report of FBI CAST agent); *United States v.*
 14 *Williams*, 13 Cr. 764 WHO, ECF No. 1228 (N.D. Cal. 2017) CAST analyses designated as exhibits and
 15 used at trial); *United States v. Ablett*, 09 Cr. 749, ECF No. 282 (N.D. Cal. 2012) (CAST presentation
 16 designated as exhibit and used at trial).

17 Even if the Court were to entertain the idea that the particular mapping program used to create
 18 demonstratives is relevant to whether SA Sparano's expert opinion passes *Daubert*—which it should
 19 not—Wendt still fails to provide any cognizable reason to exclude under Rule 702. First, the reliability
 20 of the maps are easily subject to scrutiny in the manner demonstrated above by inputting the coordinates
 21 in the CDRs into any mapping program, which requires no expertise whatsoever. *See supra* at 5-6
 22 (recreating CDR location using Google maps). Therefore, it is irrelevant how ESPA's "algorithms"
 23 work because the only relevant output from ESPA in this case are the maps. The use of software as
 24 tools is commonplace, and does not require the user of the software to be an "expert" on the underlying
 25 software algorithms in order to speak regarding the outputs. *See Morgan*, 292 F. Supp. 3d at 484. If
 26 that were such a requirement, no expert utilizing any technological tools would be permitted to testify
 27 without also being an expert software engineer. Here, not only is independent verification of the maps
 28 easily accessible but the maps themselves are not even the actual expert opinions themselves, just the

visual representation of them. Moreover, although Wendt and the defense have been provided all of the CDRs as well as SA Sparano's draft presentation, they have identified no specific areas where the draft presentation is unreliable, or even erroneous. It is not true, as Wendt is claiming, that the defense lacks information to test the reliability of the demonstrative exhibit—on the contrary, they quite literally have all of the information to do exactly that. Based on the fact that the maps produced by ESPA can be independently verified, and the lack of any specific points of unreliability with respect to the maps (or any other aspect of the proposed opinion), there is no basis to preclude any of SA Sparano's testimony under Rule 702 because she used ESPA to create demonstrative maps. Should the defense come up with some issue regarding the draft presentation, they are entitled to cross examine her at trial; the methodology and science behind cellular technology will remain reliable.

III. A *Daubert* Hearing is Not Warranted

The Ninth Circuit has held that a district court is not required to conduct a *Daubert* hearing in order to discharge its gatekeeping function. *United States v. Alatorre*, 222 F.3d 1098, 1102-03 (9th Cir. 2000); *see also United States v. Nichols*, 169 F.3d 1255, 1262-63 (10th Cir. 1999) (rejecting claim that defendant was entitled to a preliminary hearing on admissibility of expert testimony and concluding that court did not abuse its discretion in refusing such a hearing). “A *Daubert* hearing is clearly not required where the reliability of the area of expertise is well-established and a defendant fails ‘to show cause for questioning the evidentiary reliability’ of the expert’s methodology.” *United States v. Hylton*, No. 17-CR- 86, 2018 WL 5795799, at *2 (D. Nev. Nov. 5, 2018) (citing *United States v. Calderon-Segura*, 512 F.3d 1104, 1110 (9th Cir. 2008)); *see also United States v Easchief*, 363 Fed App’x 526, 528 (9th Cir. 2010) (upholding trial court’s decision not to hold hearing where defendant “made nothing but conclusory assertions of unreliability in his motion, and added nothing during the hearing concerning the motion” and “there was no serious dispute about either the expert’s qualifications or the validity of her methodology”); *Bell v. Gonzales*, 2005 WL 3555490, at *16 n.16 (D.D.C. Dec. 23, 2005) (noting that in cases where the expert report and affidavits “provide the necessary information, and the matter is not unusually complex or novel, a hearing is unnecessary.”) Because historical cellular analysis is well-established, numerous courts have admitted such testimony without a hearing. *See e.g., United States v. Williams*, 13-CR-764 WHO, ECF No. 836 (N.D. Cal. Jan. 27, 2016) (finding FBI CAST agent reliable

under *Daubert* without hearing); *United States v. Howard*, No. 16-00029, 2017 WL 2662469, at *4 (C.D. Cal. Jun. 19, 2017) (exercising discretion to deny request for *Daubert* hearing because a hearing “would not be helpful here due to the wide consensus in the judicial community that historical cell site data is a reliable methodology”); *United States v. Porter*, No. 13-66, 2016 WL 538456, at *3 (E.D. La. Feb 10, 2016) (finding no *Daubert* hearing necessary since no novel challenge to testimony made.); *United States v. Gatson*, 13-CR-705, 2015 WL 5920931, at *3 (D.N.J. Oct. 9, 2015) (finding that *Daubert* hearing was unnecessary when defendant did not present a novel challenge to cell site analysis); *United States v. Freeman*, No. 06-20185, 2015 WL 2062754, at *5 (E.D. Mich. May 4, 2015) (declining to hold *Daubert* hearing on challenge to cell site analysis testimony where parties sufficiently briefed the issue.).

There is no serious dispute regarding SA Sparano’s qualifications or the validity of methodology of her actual opinions. As discussed above, Wendt has not shown cause for questioning the reliability of historical cell site analysis, and his conclusory and oft-erroneous assertions to the contrary should not be further entertained. None of his objections, properly placed within the strictures of a *Daubert* inquiry, come close to undermining the reliability of historical cell site analysis or raise any doubt that it is “junk science.” This is so because historical cell site analysis is reliable. Moreover, the Court has all of the information it needs on the extensive record and the benefit of two prior rounds of briefing to render its decision. Put simply, a *Daubert* hearing will not assist the Court “due to the wide consensus in the judicial community that historical cell site data is a reliable methodology.” *Howard*, 2017 WL 2662469 at *4.

IV. Wendt’s Other Non-Daubert Related Arguments Should Be Denied

In a pattern that is by now familiar, Wendt has thrown a mishmash of arguments, with dubious merit, at the wall and has done so in the context of *Daubert* motion practice. As an initial matter, the government objects to all non-*Daubert* related arguments made by Wendt as procedurally improper. Many of these arguments concern other rules of evidence that have nothing to do with the admissibility of SA Sparano’s expert opinion under Rule 702, and would be properly brought as motion *in limine*. The defense should not be permitted to repeatedly skirt the procedural rules for orderly litigation set by this Court. The Court should dismiss the Rule 16 arguments as already decided, and moot in the face of

1 a 52-page *Daubert* motion. The Court should deny as premature the various other arguments made by
 2 Wendt, including on hearsay and Rule 403 grounds. Nevertheless, the government’s opposition to each
 3 is below.

4 **A. This Court and Judge Beeler Already Ruled on Rule 16 Disclosures**

5 Wendt’s third attempt to revive Rule 16 discovery arguments Judge Beeler already rejected and
 6 this Court largely rejected at the January 13, 2021, status conference under *Daubert* litigation is
 7 improper. Repeat litigation of the same issue, in various procedural contexts and taking shifting
 8 positions, runs contrary to all manners of procedural rules. As such, the government incorporates its
 9 prior briefing on Rule 16 discovery in their entirety, including its prior argument regarding the near total
 10 lack of authority presented by the defense. *See* ECF No. 1395 (Gov’t Opp. to CAST Discovery Appeal);
 11 ECF No. 1356 (Gov’t Opp. to Additional CAST Discovery). A few additional points are below.

12 First, at the January 13, 2021, hearing, on the defense appeal of Judge Beeler’s order that no
 13 additional Rule 16 was warranted, the Court ordered that the government produce additional information
 14 pertaining to ESPA and peer review, which it did. Wendt’s counsel represented to the Court at the time
 15 that once the government provided the name of the software used, it would follow up with the software
 16 manufacturer.⁸ After the government’s disclosure on January 15, 2021, no additional requests nor
 17 motions for reconsideration came from the defense. In light of all the disclosures and an oversized
 18 *Daubert* brief challenging that very opinion, Wendt cannot continue to credibly claim he has not
 19 received proper notice under Rule 16 of SA Sparano’s opinion.

20 Second, Wendt’s reliance on *United States v. Budziak* for the proposition that more disclosure on
 21 ESPA is required is strained at best. (Wendt Br. at 15.) *Budziak* was a distribution of child pornography
 22 case, where FBI agents downloaded child pornography using the FBI’s “EP2P” computer program from
 23 an IP address registered to the defendant. 697 F.3d 1105, 1107 (9th Cir. 2012). EP2P is an enhanced
 24 version of LimeWire, a publicly available peer-to-peer file-sharing program that allows users to search
 25 for and download files stored on other users’ computers. *Id.* While LimeWire typically downloads files
 26

27 ⁸ Wendt Counsel: “[O]ur primary focus was: Tell us what the software is. And if – it’s then up
 28 to us to chase down what the software manufacturer says. If we can get to it, we’ll get to it. We’ll
 undertake that, but we need to know what it is.” (Hr’g Tr. 12 at 14-19.)

by piecing together file fragments from multiple users, the enhanced EP2P software purportedly allows the FBI to download complete files from a single user. *Id.* On appeal from his conviction, the defendant argued there was insufficient evidence of distribution because he stored child pornography in a shared folder accessible to other LimeWire users, which only constituted passive possession. *Id.* at 1108. He contended that he was improperly denied discovery on the EP2P software under Rule 16 because it was material to preparing his defense. *Id.* at 1111-12. The Ninth Circuit agreed because “[g]iven the distribution charge against Budziak was *premised on* the FBI’s use of the EP2P program to download files from him, it is logical to conclude that the functions of the program were relevant to his defense.” *Id.* at 1112 (emphasis added). *Budziak* is inapplicable here. How ESPA functions does not pertain to a required *element* of the charged offenses here. See *United States v. Robinson*, No. 15-20652, 2018 WL 5077260 (E.D. Mich. Oct. 18, 2018) (distinguishing *Budziak* in similar post-conviction and denying appeal claiming improper denial of access to ESPA because “how [EP2P] obtained the information went directly to the defendant’s defense of whether he intentionally distributed the pornography or not”) The only relevance of ESPA is that it was used to create demonstrative maps to aid in SA Sparano’s testimony, which the defense can easily verify using any publicly available mapping program.

B. Wendt Has Provided No Basis to Preclude Use of the Demonstrative Exhibit At Trial

Demonstratives are used to explain or illustrate testimony or evidence already in the record. *Tritek Tech., Inc. v. U.S.*, 67 Fed. Cl. 727, 729 (Fed. Cl. 2005). Moreover, under Fed. R. Evid. 1006, the government is permitted to use a summary or chart to prove the content of voluminous writings. As a general matter, demonstrative exhibits are admissible if they are relevant and not unduly prejudicial. See *Medina v. Madden*, No. 15-CV-02708-HSG, 2016 WL 6962860, at *12 (N.D. Cal. Nov. 29, 2016) (“It is entirely proper for a prosecutor to use objects similar to those connected with the commission of a crime for purposes of illustration. To be admissible, demonstrative evidence must satisfy two requirements: first, the evidence must be a reasonable representation of what it is alleged to portray; and second, the evidence must assist the jurors in their determination of the facts of the case, rather than serve to mislead them.” (internal alterations and citations omitted)); see, e.g., *United States v. Scott*, No. 14-CR-60-BLW, 2015 WL 2036331, at *2 (D. Id. Apr. 30, 2015) (admitting demonstrative exhibit of

1 skull of victim in murder case, finding such exhibit relevant and not unduly prejudicial).

2 Here, the demonstrative exhibit created by SA Sparano and voluntarily disclosed well in advance
3 of trial, is a reasonable representation of the A&T cell phone records and will certainly assist the jury in
4 understanding the facts of the case. It is admissible.

5 Scattered in his *Daubert* brief, Wendt appears to make various objections to the admissibility of
6 the demonstrative itself based on non-*Daubert* grounds. Wendt states that “the relevance of Agent
7 Sparano’s analysis is dependent on proof of the relevance and admissibility of the information about the
8 target phones.” (Wendt Br. at 27.) This is true. The government will present evidence, as typical in
9 these cases, through other witnesses establishing information regarding the target phones. Indeed, the
10 information the government will establish is evident in the draft demonstrative itself in that it denotes
11 the particular phone numbers that were analyzed.

12 Wendt also objects in that there is no “authenticating evidence” regarding “Agent Sparano’s
13 mapping evidence within the meaning of F.R.E. 901(a).” (Wendt Br. at 17.) The evidence is the
14 underlying AT&T phone records and SA Sparano’s expert testimony about them. To the extent it makes
15 sense at all to require authentication of a demonstrative exhibit, it is satisfied for the obvious reason that
16 SA Sparano created the demonstrative exhibit and therefore she can say it is what it is. *See* Fed. R.
17 Evid. 901(a). Again, police officers and other witnesses routinely authenticate photographs, maps, or
18 videos, by recognizing what they are, without needing to know the precise technology behind a camera,
19 Google Maps, or video equipment.

20 In support of this authentication argument, Wendt cites *United States v. Espinal-Almeida*, 669
21 F.3d 588 (1st Cir. 2012), and cryptically notes “[o]f some significance, for obvious reasons, was that the
22 accused had not objected to the GPS’s admission at trial.” (*Id.* at 18.) But the defendant did object to
23 the authenticity of the GPS evidence on appeal, and the First Circuit evaluated the argument. *Id.* at 609-
24 610. It held that the GPS device at issue was authenticated because there was testimony regarding its
25 seizure. *Id.* at 610. Further, with respect to the data generated by the GPS device, it held that the
26 forensic scientist who analyzed the data properly authenticated it. *See id.* The Court specifically
27 rejected the defense’s contention that proper authentication required expert testimony, finding that
28 “[t]issues surrounding the processes employed by the GPS and software, and their accuracy, were not so

1 scientifically or technologically grounded that expert testimony was required to authenticate the
 2 evidence, and thus the testimony of Durand, someone knowledgeable, trained and experienced in
 3 analyzing GPS devices, was sufficient to authenticate the GPS data and the software generated
 4 evidence.” *Id.* at 612-13; *see also United States v. Thompson*, 393 Fed App’x 852, 858-59 (3d Cir.
 5 2010) (lay witness’s testimony concerning the operation of a GPS device, including the authentication of
 6 the GPS’s data, was properly allowed by the trial court). Wendt’s cite to *Morgan*, 292 F. Supp. 3d 475,
 7 fares no better. As explained above, *Morgan* held that an expert is not required to have in-depth
 8 knowledge of all the algorithms underlying their technological tools to testify reliably regarding the
 9 outputs of those tools. 292 F. Supp. 3d at 484.

10 Authenticity under Rule 901(a) is a low bar, and is satisfied with respect to the demonstrative
 11 maps by the fact that SA Sparano was the one who created them and her experience using the mapping
 12 program in her job. Nothing more is required, and Wendt’s unsupported suggestion to the contrary
 13 should be rejected.

14 **C. SA Sparano’s Proposed Testimony is Not Inadmissible Hearsay**

15 Wendt appears to object that “the records employed by Agent Sparano contain hearsay” and that
 16 the maps themselves are hearsay and violate the confrontation clause. (*See* Wendt Br. at 37-38.) Again,
 17 the cases cited by Wendt himself demonstrate otherwise.

18 First, under Rule 803(6), the records of AT&T are admissible as business records. The case
 19 cited by Wendt holds as much. (Wendt Br. at 37 citing *United States v. Yeley-Davis*, 632 F.3d 673, 678-
 20 81 (10th Cir. 2011) (holding that cell phone records admissible as business records under Rule 803(6)
 21 and neither the records nor the business custodian certifications are testimonial for purposes of the
 22 confrontation clause)); *see also United States v. Evans*, 178 Fed App’x 747, 749 (9th Cir. May 8, 2006)
 23 (Verizon phone bill admissible under business records exception and business records are not
 24 testimonial because they are kept in the regular course of business); *United States v. Walt*, 117 F.3d
 25 1427 (9th Cir. 1997) (upholding admission of phone records as business records).

26 Second, Wendt suggests that the demonstrative maps and/or notations on them constitute hearsay
 27 and violate the confrontational clause. As already noted, the information contained on the demonstrative
 28 come directly from the AT&T records, which are admissible business records under Rule 803(6) and are

not testimonial. *Yeley-Davis*, 632 F.3d at 678-81; *see also Evans*, 178 Fed App'x at 749 (Verizon records are non-testimonial business records). The cases cited by Wendt concern entirely inapposite situations. *Bullcoming v. New Mexico* concerned the introduction of a blood alcohol analysis report prepared by one forensic analyst that was then presented through the testimony of a different analyst who had not certified the report or performed or observed the testing. 564 U.S. 647, 661-62 (2011). The Supreme Court held that not calling the forensic analyst who prepared the report was a violation of the confrontation clause. *Id.*; *see also Melendez-Diaz v. Massachusetts*, 557 U.S. 305 (2009) (drug certifications of drug quantity were testimonial statements subject to the confrontation clause). These cases are patently divergent from the maps being offered here, the least of because SA Sparano created the maps and *will be testifying at trial*. To the extent that Wendt is also suggesting that the inclusions of the actual telephone numbers analyzed, and other labels of certain locations constitute hearsay, the Court should similarly reject that argument. First, the Ninth Circuit has already rejected this argument to the extent that Wendt is referring to the markers on the maps generated by ESPA. *See also Lizarrago-Tirado*, 789 F.3d at 1110 (“A tack placed by the Google Earth program and automatically labelled with GPS coordinates isn’t hearsay Here, the relevant assertion isn’t made by a person; it’s made by the Google Earth program. Though the person types in the GPS coordinates, he has no role in figuring out where the tack will be placed. The real work is done by the computer program itself.”) Second, if all of SA Sparano’s testimony is permitted and found reliable, the exclusion of the telephone numbers and other basic labels underlying that testimony from the demonstrative exhibit will only serve to make her testimony more difficult for the jury to understand. This objection should be denied on that basis alone. *See Fed. R. Evid. 807; see also Lizarrago-Tirado, cf. Fed. R. Evid. 403*. Further, as explained above, the information contained in the demonstrative slides are all from AT&T records and/or reflect testimony that SA Sparano will be giving in court, i.e. not hearsay. The government and its witnesses, just like the defense, are entitled to create demonstrative slides in assistance of its trial presentation. *See infra* at 23-24.

D. SA Sparano’s Testimony is Relevant and Not Unfairly Prejudicial Under Rule 403.

Finally, Wendt argues the Court should preclude SA Sparano’s testimony on Rule 403 grounds. Confoundingly, he claims that SA Sparano is “not relying on facts or data that are ‘ . . . of a type

reasonably relied upon by experts in the particular field forming opinions or inferences upon the subject. F.R.E. 703.’” (Wendt Br. at 40.) The attempt to import and/or conflate *Daubert* issues with Rule 403 should be rejected, as Wendt himself noted “Rule 403 and *Daubert* operate independently.” (Wendt Br. at 41.) But also the exact opposite is true: SA Sparano, as spelled out in her declaration, relied on CDRs and towers to conduct her analysis, which is how historical cellular analysis is done.

Next, Wendt claims that the demonstrative exhibit is “argumentative,” (Wendt Br. at 42), but does not specify what he means. Wendt again reprises the *Morgan* case for his Rule 403 argument, despite the fact that *Morgan* held the opposite on both *Daubert* and Rule 403 grounds: “relevancy and Rule 403 considerations do not require perfect expert opinions; the judge is supposed to screen the jury from unreliable nonsense opinions, but not exclude opinions merely because they are impeachable.” 292 F. Supp. 3d at 486 (citing *Alaska Rent-A-Car, Inc. v. Avis Budget Grp., Inc.*, 738 F.3d 960, 969 (9th Cir. 2013)). As noted above, under Rule 403, the absence of any basic labels on the demonstrative maps will serve to confuse the jury and unnecessarily prolong the testimony.

The remainder of Wendt’s arguments couched in Rule 403 are repetitions of arguments he had already made in the context of *Daubert* and in his other arguments—that is, he doesn’t understand ESPA and there was no drive testing. The government refers the Court to the above for its response. *See supra* 14-20.

CONCLUSION

The Court should deny Wendt’s motion to limit or preclude SA Sparano’s expert testimony in its entirety.

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Respectfully submitted,

DAVID L. ANDERSON
United States Attorney

/s/

KEVIN J. BARRY
LINA PENG
AJAY KRISHNAMURTHY
Assistant United States Attorneys